1 Identification of substance

· Product details
  · Trade name: RABORAL V-RG® Coated Sachets
  · Product number: 2315
  · Manufacturer/Supplier:
    Merial Limited
    115 Transtech Drive
    Athens, GA 30601
    Tel.: +1 706 548 9292
  · Information department: MSDS Coordinator
  · Emergency information:
    Spill Information:
    CHEMTREC® 1-800-424-9300
    CHEMTREC® International 1+703-527-3887
    International calls 011+703-527-3887
    Reverse charges.

2 Composition/Data on components

· Chemical characterization:
  · CAS No. Description
    Non hazardous substance
  · Chemical characterization
  · Vaccine components
    This product is a vaccine (biological) for use in animals.
  · Liquid component contains:
    This product consists of a gene-deleted, attenuated live vaccinia virus vector which expresses rabies glycoprotein.

3 Hazards identification

· Hazard description: Not applicable.
· Information pertaining to particular dangers for man and environment:
  R 21 Harmful in contact with skin.
  R 22 Harmful if swallowed.
· Classification system:
  · NFPA ratings (scale 0 - 4)
    Health = 1
    Fire = 0
    Reactivity = 0
  · HMIS-ratings (scale 0 - 4)
    Health = 1
    Fire = 0
    Reactivity = 0
Trade name: RABORAL V-RG® Coated Sachets

4 First aid measures

· General information:
  Immediately remove any clothing soiled by the product.
  Seek immediate medical advice.
· After inhalation: Not an expected route of entry.
· After skin contact:
  Immediately wash with water and soap and rinse thoroughly.
  If skin irritation occurs, consult a doctor.
· After eye contact:
  Rinse opened eye for a minimum of 15 minutes under running water. Get medical attention immediately.
· After swallowing:
  Immediately call a doctor.
· After self injection
  Information for doctor.
  The following symptoms may occur
  Localized skin lesions are possible.
· Danger
  Potentially hazardous to health if any of the following should occur: Ingestion, parenteral inoculation, droplet or aerosol exposure of mucous membranes or if broken skin is exposed to infectious fluids or tissues.

All people should avoid contact, but young children, pregnant women, individuals with immune deficiencies or those on steroids should avoid contact with this vaccine.

5 Fire fighting measures

· Suitable extinguishing agents: Water spray, carbon dioxide, foam or dry chemical powder.
· Protective equipment:
  Fire fighters should wear self-contained breathing apparatus and full protective equipment.

6 Accidental release measures

· Person-related safety precautions: Wear protective clothing.
· Measures for environmental protection: No special measures required.
· Measures for cleaning/collection:
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  Dispose contaminated material as waste according to section XIII.
  To clean spills or contamination use 1:30 dilution of household bleach.
· Additional information: No dangerous substances are released.

7 Handling and storage

· Handling:
  Information for safe handling:
  Store in cool, dry place in tightly closed containers.
  Handle with care. Avoid jolting and impact.
· Information about protection against explosions and fires: No special measures required.
· Storage:
  Requirements to be met by storerooms and receptacles: Store only in the original container.
  Information about storage in one common storage facility: Not required.
· Further information about storage conditions: Store in a cool, dry, well ventilated place.
Trade name: RABORAL V-RG® Coated Sachets

- **Recommended storage temperature:**
  - 2-7°C
  - 35.6-44.6°F

8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Components with limit values that require monitoring at the workplace:** Not required.
- **Personal protective equipment:**
  - **General protective and hygienic measures:**
    - Wash hands before breaks and at the end of work.
    - Avoid contact with the eyes and skin.
    - Do not store food in the working area.
    - Do not eat, drink or smoke in work areas.
    - Do not inhale vaccine.
  - **Protection of hands:** Impervious gloves to minimize skin contact.
  - **Eye protection:** Goggles recommended during refilling.
  - **Body protection:** Light weight protective clothing

9 Physical and chemical properties

- **General Information**
  - **Form:** Liquid encased in a sachet.
  - **Color:** Pink to red
  - **Odor:** Odorless

- **Change in condition**
  - **Melting point/Melting range:** Undetermined.
  - **Boiling point/Boiling range:** Undetermined.

- **Flash point:** Not applicable.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Specific gravity:** Not determined.
- **Solubility in / Miscibility with**
  - **Water:** Fully miscible.

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Dangerous reactions** No dangerous reactions known.
- **Dangerous products of decomposition:** No dangerous decomposition products known.

11 Toxicological information

- **Acute toxicity**
- **Primary irritant effect**
  - **on the skin:** Irritant to skin and mucous membranes.
  - **on the eye:** May cause irritation.
  - **Sensitization:** Sensitization possible through skin contact.
### 12 Ecological information

- **Behavior in environmental systems:**
- **Other information:** Viability of the virus varies with environmental conditions.
- **General notes:**
  - Water hazard class 1 (Self-assessment): slightly hazardous for water
  - Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

### 13 Disposal considerations

- **Product:**
- **Recommendation:** Incinerate in EPA licensed Bio/Medical waste facility.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** To clean spill or contamination use a 1:30 dilution of household bleach.

### 14 Transport information

- **DOT regulations:**
- **Hazard class:** -
- **Land transport ADR/RID (cross-border):**
  - **ADR/RID class:** -
- **Maritime transport IMDG:**
  - **IMDG Class:** -
  - **Marine pollutant:** No
- **Air transport ICAO-TI and IATA-DGR:**
  - **ICAO/IATA Class:** -

### 15 Regulations

- **Sara**
- **Section 355 (extremely hazardous substances):** Substance is not listed.
- **Section 313 (Specific toxic chemical listings):** Substance is not listed.
- **TSCA (Toxic Substances Control Act):** Substance is not listed.
- **CA Proposition 65**
- **Chemicals known to cause cancer:** Substance is not listed.
Trade name: RABORAL V-RG® Coated Sachets

- Chemicals known to cause reproductive toxicity:
  Substance is not listed.

- Cancerogenicy categories
  - EPA (Environmental Protection Agency)
    Substance is not listed.
  - IARC (International Agency for Research on Cancer)
    Substance is not listed.
  - NTP (National Toxicology Program)
    Substance is not listed.
  - TLV (Threshold Limit Value established by ACGIH)
    Substance is not listed.
  - MAK (German Maximum Workplace Concentration)
    Substance is not listed.
  - NIOSH-Ca (National Institute for Occupational Safety and Health)
    Substance is not listed.
  - OSHA-Ca (Occupational Safety & Health Administration)
    Substance is not listed.

- Product related hazard informations:
The substance is not subject to classification according to the sources of literature known to us. Observe the general safety regulations when handling chemicals.

- Risk phrases:
  21 Harmful in contact with skin.
  22 Harmful if swallowed.

- Safety phrases:
  2 Keep out of the reach of children.
  3 Keep in a cool place.
  24/25 Avoid contact with skin and eyes.

- Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.

16 Other information
This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Contact: MSDS Coordinator, msds@merial.com